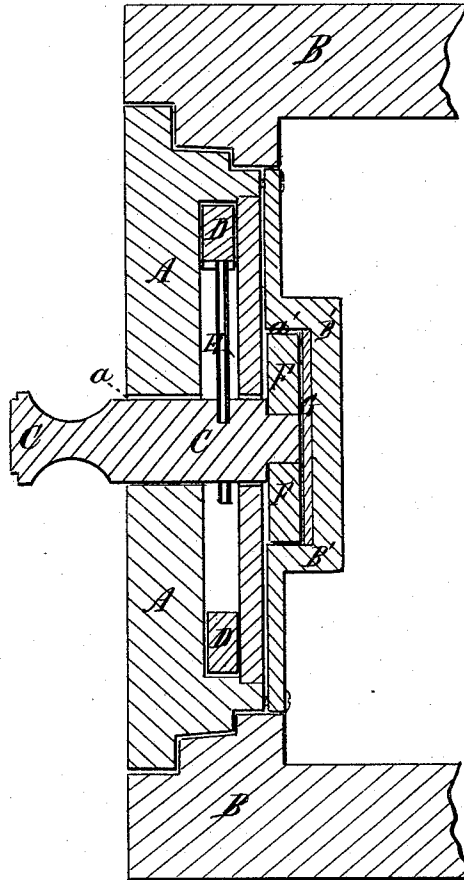


W. L. POTTER.
LOCKS FOR SAFES, &c.

No. 178,250.

Patented June 6, 1876.



Witnesses

Wm. Spruce Edwards
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Inventor

William L. Potter
per James A. Whitney
att'y

UNITED STATES PATENT OFFICE.

WILLIAM L. POTTER, OF MECHANICSVILLE, NEW YORK.

IMPROVEMENT IN LOCKS FOR SAFES, &c.

Specification forming part of Letters Patent No. **178,250**, dated June 6, 1876; application filed October 11, 1875.

To all whom it may concern :

Be it known that I, WILLIAM L. POTTER, of Mechanicsville, in the county of Saratoga and State of New York, have invented certain Improvements in Locks for Safes, of which the following is a specification :

With the combination-locks of ordinary safes it is possible, by blows of a sledge, to either drive in the knob of the lock, so as to afford access to the interior of the lock, fracture the parts thereof, or so deface and injure the knob itself as to render it impossible to open the safe without resort to further violence, involving, in many cases, the destruction of the door. The object of this invention is to provide a means whereby this source of danger and loss may be effectually obviated. To this end the said invention consists in an india-rubber pad or cushion so arranged as to receive all inward thrust of the knob, whereby the force of blows upon the latter is nearly or quite absorbed by the cushion, thereby securing the result desired.

The invention further comprises a novel combination of a bearing boss or disk, provided upon the inner end of the knob, a socket conforming to the shape of said boss, and the hereinbefore-named india-rubber cushion, the latter being interposed between the two former and the boss, enabling force applied to the knob to be distributed over a greater mass of india-rubber than would otherwise be practicable.

The drawing represents a transverse section of a safe-door and its surrounding frame, the knob operating the lock of said door being constructed and arranged for operation according to my invention.

A is the safe-door, and B is the frame or adjacent portion of the safe. C is the knob actuating the lock and passed through a corresponding hole, *a*, in the door.

For purposes of illustration merely, the bolts D of the lock are indicated as operative by means of a simple arm or tumbler, E, attached to the knob C; but in practice the knob is connected with the bolts of any of the known or usual means employed in safe-locks, the mere connection of the knob with the aforesaid bolts having only indirect relation to the gist or special subject-matter of my invention,

and, moreover, requiring only the mechanical skill easily available in the present condition of the art, needs no further or special description here.

Upon the inner extremity of the knob is a disk or boss, F, which fits into but does not extend to the bottom of a cavity or socket, *a'*, in the inner plate B' of the door A, the said plate being firmly fixed to the door by any suitable or ordinary means. At the bottom of the cavity *a*, between the same and the boss F, is a thickness of pad or layer of india-rubber, which forms a cushion, G, against which bears the boss F, the said cushion G, from its position, just described, receiving all inward thrusts from any force, as of sledge-hammer blows, &c., that may be exerted upon the outer or projecting portion of the knob C, and, by absorbing the force thus applied, prevents the driving inward of the knob, and all fracture and like injury that would otherwise result from the driving. This advantageous result would, of course, be secured in a measure if the inner end of the knob, irrespective of the boss, were fitted against the pad or cushion; but by means of the boss the bearing of the knob against the cushion is very much increased, and any force applied to the knob, as aforesaid, is more widely distributed and proportionally more rapidly dissipated, while the cushion, being arranged within the socket, is kept in proper relation to the boss, the latter, moreover, being sustained, as by a guide, against lateral displacement, by projecting partially within the socket, as shown in the drawing, and herein previously set forth.

What I claim as my invention is—

1. The combination of the india-rubber pad G and the knob C of a safe-lock, the pad being arranged to receive the inward thrust of the knob, substantially as and for the purpose set forth.

2. The boss F, provided on the inner end of the knob C, the fixed or resisting socket *a*, and the interposed elastic pad G, the whole combined and arranged substantially as and for the purpose set forth.

WILLIAM L. POTTER.

Witnesses :

W. MAKEPEACE EDWARDS,
H. WELLS, Jr.